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EXAMINER

CORDRAY, DENNIS R

ART UNIT

PAPER NUMBER

1791

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/506,582	<b>Applicant(s)</b> GONZALEZ SALAZAR ET AL.	
	<b>Examiner</b> DENNIS CORDRAY	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11 is/are rejected.
- 7) ☒ Claim(s) 1-7 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/3/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 8-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/8/2008.

### ***Claim Objections***

Claims 1-11 are objected to because of the following informalities: the claims appear to be a literal translation into English from a foreign document and are replete with translation, grammatical, spelling and idiomatic errors. While an attempt has been made to list all errors to the extent that the claims are understood by the Examiner, Applicant is requested to carefully review the claims prior to any amendment for any errors not listed herein. Appropriate correction is required.

Claim 1, lines 7-10 on the page: the word "hallow" is misspelled; Reactor, Furnace, Heating, Element, Connecting and Pipes are capitalized; the words "characterized because" are meaningless.

Claim 2, lines 16-19 on the page: the word "en" is misspelled; the word "conducts" is meaningless; Reactor and Furnace are capitalized; the words "are communicated by means of pipes" is meaningless; the words "this means" are meaningless.

Claim 3, lines 23-25 and 27-30 on the page: the words "trough" and "hallow" and "greater" are misspelled; Reactor, Furnace and Chambers are capitalized; the words "allowing by this" are meaningless; the word "has" should be "have."

Claim 4, lines 5, 6 and 9 on the page: the word “hallow” is misspelled; Reactor, Reactor’s and Furnace, are capitalized.

Claim 5, lines 14 and 16 on the page: the words “is such that forces the raw materials” is meaningless; Reactor, Furnace and Chamber are capitalized.

Claim 6, lines 20, 21 and 24 on the page: the word “is” in line 24 should be “are”; Reactor and Furnace are capitalized.

Claim 7, line 29 on the page: the words “here by” should be “thereby.”

Claim 11, line 11 on the page: Reactor is capitalized.

In addition, numerous commas are present throughout the claims where unnecessary and absent where their presence might clarify the claimed subject matter.

### ***Drawings***

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because drawing 1/1 is labeled “FIGURA 1,” which is not in the English language. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Specification***

The abstract of the disclosure is objected to because it contains too many words. Correction is required. See MPEP § 608.01(b).

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35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with grammatical and spelling errors, capitalized words in the middle of sentences, mistranslations and terms which are not clear, concise and exact. The specification should be carefully revised in order to comply with 35 U.S.C. 112, first paragraph. No new matter should be included.

A very limited number of examples of incorrect, unclear, inexact or verbose terms used in the specification includes:

P 1, line 19: the words "organic and inorganic trash" are italicized,

P 1, line 23: the words "synthetic litters" are meaningless,

P 1, line 30: the words "it was developed a machine" are meaningless,

P 2, line 1: the words "transformed in different and useful items" are meaningless,

P 2, line 2: the words "a safe of volume" are meaningless,

P 2, line 9: the words "allow it to become useful and long lasting products" are meaningless,

P 2, line 13: the word "\_floors" should be changed to "floors",

P 2, line 21: the words "At the moment it is known the Method and Apparatus" are meaningless,

P 3, line 5: the word "trough" is misspelled,

P 3, line 6: the word "hallow" is misspelled,

P 3, line 14: the words "eolic" and "o" are meaningless,

P 3, line 15: the word "devises" is misspelled,

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P 3, lines 19-20: the words "fiver," "burs," "fiver glass" are misspelled,

P 4, line 26: the word "movil" is misspelled,

P 4, line 29: the word "Aeolian" is meaningless,

P 5, line 1: the word "camera" is meaningless in the context of the invention,

P 5, line 20: the word "hallow" is misspelled,

P 5, line 21: the word "conducts" is meaningless in the sentence,

P 6, line 4: the words "exit overture" are meaningless,

P 6, line 21: the words "in a regular temperature" are meaningless,

P 6, line 22: the words "being in contact with is corresponding connecting pipes" are meaningless,

P 7, line 16: the word "Sensor" should not be capitalized,

P 7, line 24: the words "Such shall" are meaningless,

P 7, line 26: the words "tube with a hole of vent with cap" are meaningless,

P 8, lines 4 and 22: the words "receptor camera" are meaningless,

P 9, line 24: the words "of dry ice" are meaningless in the context of the invention.

Numerous other examples are found throughout the Specification and claims.

### ***Claim Objections***

Claims 1-7 and 11 objected to because of the following informalities:

In Claim 1 the words Reactor, Furnace, Heating Element, Connecting Pipes should not be capitalized; the word "hallow" in line 3 is misspelled; the words "characterized because" make no sense,

In Claim 2 the words Reactor, Furnace, Claim should not be capitalized; the word "en" in line 4 is misspelled; the words "both chambers forming a hollow wall are communicated by means of pipes or conducts" make no sense; the words "en diametrical form, this means, across the whole cavity" make no sense,

In Claim 3 the words Reactor, Furnace, Heating Element, Connecting Pipes should not be capitalized; the words "trough" and "hallow" in lines 6 and 7 are misspelled; the phrase "have a greater enough cross sectional area, therefore forcing to the Heating Element" make no sense; the phrase "circulate trough the totality of the internal connecting pipes and therefore not only trough the hallow walls of the Reactors chamber, allowing by this, that the raw materials (inorganic and organic waste) which has not been in contact with the heated Reactors walls, get in contact in the central part of the Reactor with the heated connecting pipes arranged in several layers and in diametric form" make no sense; the verb "has" in line 8 should be "have,"

In Claim 4 the words Reactor, Furnace should not be capitalized; the word "hallow" in line 3 is misspelled,

In Claim 5 the words Reactor, Furnace, Chamber should not be capitalized,

In Claim 6 the words Reactor, Furnace, Claim should not be capitalized; the comma after heat in line 4 should be removed; the word "is" in line 6 should be "are",

In Claim 7 the words "the moldable doughlike paste here by obtained...reactor, once cold becomes solid " in lines 3 and 4 make no sense,

In Claim 11 the words Reactor, Furnace, Heating Element, Connecting Pipes should not be capitalized; the word "hallow" in line 3 is misspelled,

In Claim 1 the word Reactor should not be capitalized; the words "characterized by its advanced and novel disposition or arrangement of all its elements" in lines 8 and 9 make no sense.

While an attempt has been made to outline all of the spelling, grammatical and insensible portions of the claims, the Applicant is urged to carefully review them to ensure correctness.

Claim 7 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claim 7 has not been further treated on the merits with respect to prior art. Some treatment of the claim regarding indefiniteness issues outside of the multiple dependency is discussed below with the intention of allowing Applicant to formulate a claim ready for further examination.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with translation, grammatical and idiomatic errors. An



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attempt has been made to point out the various errors and indefiniteness herein; however, Applicant is advised to carefully review the claims prior to amendment in the event that some errors were inadvertently missed.

Claim 1 recites the limitation "this Reactor or Furnace," "the Heating Element," "the connecting pipes," and "the heat," apparently in earlier portions of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-6 recite the limitation "a Reactor or Furnace" in Claim 1. There is insufficient antecedent basis for this limitation in the claims.

Claim 3 recites the limitation "the internal connecting pipes" in Claim 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the heated connecting pipes arranged in several layers in diametric form" in Claim 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the two Chambers that form the hollow wall of the Reactor" diametric form" in Claim 1. There is insufficient antecedent basis for this limitation in the claim as Claim 1 does not recite that the two chambers form the hollow wall, only that the hollow walls are divided into two chambers.

Claim 3 recites the limitation "the heated connecting pipes" in Claim 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the Reactor Chamber" in Claim 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitations "the opening" and "the extreme of the Reactor" in Claim 1. There is insufficient antecedent basis for these limitations in the claim.

Claim 7 recites the limitation "the extreme of the reactor" in Claims 1-5. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the moldable dough like paste" in Claims 1-6. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "the system" in line 6, apparently in reference to an earlier part of the Claim. There is insufficient antecedent basis for this limitation in the claim.

Claims 1-7 and 11 recite "diverse uses." It is not clear what is meant by the term.

Claim 1 recites "softening and agglutinating" the inorganic and organic waste, and also recites "forcing the paste to follow various trajectories." It is not clear if the paste is intended to be the softened and agglutinated inorganic and organic waste or if another paste is present. It is also not clear what is meant by the term "various trajectories" as a trajectory is typically understood to be the path of a moving body. It is also not clear how the Connecting Pipes and/or the softening and agglutinating forces the paste to follow the various trajectories.

Claim 2 recites "en diametrical form, this means, across the whole cavity of the reactor or furnace following the 'communicating vessel principle.'" It is not clear if the words following "this means" are intended to define "en diametrical form" or to present an additional feature of the machine. It is also not clear if the pipes or internal conduits are intended to cross the chambers forming the hollow wall of the reactor, cross the

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interior of the reactor between the hollow walls, or cross both the chambers and the interior of the reactor. The meaning of “communicating vessel principle” is not clear.

Claim 3 recites that the two Chambers that form the hollow wall have a “greater enough cross sectional area, therefore forcing to the Heating Element ... to always circulate trough the totality of the internal connecting pipes and therefore not only trough the hallow walls of the Reactors chamber.” It is not clear how the cross sectional area of the two Chambers forces the heating element to circulate.

Claim 3 recites that the heating element circulates through the totality of the internal connecting pipes and allows the raw materials to get in contact in the central part of the reactor with the heated connecting pipes. It is not clear how the circulating heating element allows the raw materials to get in contact with the heated connecting pipes since the raw material will contact the connecting pipes by virtue of being forced into contact with them in the process. The contacting has nothing to do with the circulating heating element.

In Claim 4, it is not clear how the disposition of the two chambers and the connecting pipes force the heating element to flow in uniform manner through the complete Reactor's body. It is also not clear what is encompassed by “the complete Reacror's body.” The heating element flows through the hollow walls and the connecting pipes. Does the complete reactor's body consist only of the hollow walls and connecting pipes? If the complete reactor's body consists of the hollow walls, connecting pipes and all of the area through which the paste flows, then the heating

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element cannot flow through the complete reactor's body because it is constrained to the hollow walls and connecting pipes.

In Claim 5, it is not clear how the disposition of the connecting pipes forces the raw materials to describe a trajectory. It is also not clear what is meant by "a trajectory in labyrinth form" or how such a trajectory is similar to a mixing action.

In Claims 6 and 7, the location of "the extreme of the Reactor" is not clear, there being no reference to any other portion of the reactor.

In Claims 6 and 7, the term "evacuated" is not clear. Is the moldable paste evacuated by exiting through the opening from the reactor? Is the moldable paste evacuated by withdrawing the air from the reactor through the opening?

Claim 7 recites that the moldable dough becomes solid and has excellent mechanical properties. It is not clear what is meant by "excellent mechanical properties."

Claim 11 presents a listing of many parts for a machine but fails to indicate how the parts are disposed or arranged with respect to each other in any advanced or novel disposition or arrangement to form the machine. In addition, the claim recites "some connecting pipes" and "some sensors" without reciting which connecting pipes or sensors are intended to be included in the claimed invention. The general listing of parts, which could be found on many machines, with no further description of their arrangement is indefinite.

Claim 11 recites "a compensation tank to maintain the system at atmospheric pressure" but fails to define what is meant by "the system." Does the system refer to

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the furnace, the pump, the connecting pipes, a hydraulic piston, the supporting structure, the heating equipment or to some other system?

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheeres (5240656) in view of Schuchardt (6217208).

Scheeres discloses an apparatus (machine) for treating plastics waste contaminated with dirt, drink and food (organic and inorganic material) to obtain a molten contaminated plastic (a mouldable paste) and to further produce moulded solidified bodies by cooling, such as bricks or briquettes, that can be further used for diverse purposes, such as building or roadmaking materials or as fuel (Abs; col 10, lines 8-17; col 11, lines 8-16; col 12, lines 31-36; col 14, lines 49-51; col 14, line 64 to col 15, line 12; col 15, lines 47-67; col 16, lines 41-42; col 21, lines 25-37). The solidified bodies thus produced must have excellent mechanical properties to be useful as building or roadmaking materials. The apparatus comprises a chamber for receiving plastics waste and a means for heating the waste to produce a controlled melt (melt chamber), and an outlet (opening in the extreme of the reactor) through which the molten plastics waste flows (col 16, lines 41-48). The chamber thus serves as the

claimed reactor or furnace and the various plastics and inorganic materials are combined when the plastic melts, thus are agglutinated.

The heating means disclosed by Scheeres comprises spiral or helically wound electrical heating elements in the walls of the chamber (col 27, lines 20-39). Additionally, a projection (item 46, Fig. 4) extends upward through a post densification chamber (item 29, Fig. 4) located below the melt chamber (items 33, 37 and 38, Fig. 4). The projection, termed a spider by the inventor, comprises a web that extends across the cylindrical portion of the post densification chamber and also comprises an electrical resistance heating element (item 56 and 56a, Fig. 6) to bring heat into the central region of the chamber and maintain the molten flowable condition of the plastic and prevent partial solidification of the molten product at the outlet (col 17, lines 7-25; col 26, lines 36-68; col 27, lines 40-49; col 30, lines 29-33).

Scheeres does not disclose a furnace formed by hollow walls forming two chambers, pipes arranged in a diametrical form across the cavity of the reactor or furnace, heating oil passing in a closed circuit through connecting pipes or conduits, that the raw material contacts the heated connecting pipes, or that the raw materials are forced to follow various trajectories.

Schuchardt discloses a static mixer and heat exchanger apparatus for mixing viscous fluids that can be heated or cooled and which can be manufactured inexpensively (Abs; col 1, lines 5-15; col 2, lines 8-12). The apparatus comprises two or more layers of undulating or zig-zag bars which are parallel to each other and which are disposed one above the other rotated by an angle to each other in alternating manner

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and which are joined to each other at their upper and lower vertices. The layers are housed in an inner housing having an inlet and an outlet for the material to be mixed. In some embodiments, the apparatus also comprises an outer shell. In a preferred embodiment, the bars comprise channels for the passage of heat transfer fluid, the channels arranged in a straight line through the bars from one side of the mixer to the other, or in diametrical form (connecting pipes or internal conduits arranged in several layers) (col 2, lines 13-47). One embodiment of the apparatus is depicted in Figures 2, 3a, 3b and 3c, which are described in Example 1 (col 4, lines 10-49). A shell 1 contains an inner housing 2 with alternating layers of bars 3,4. The shell and inner housing form a hollow walled vessel that, in the embodiment presented, is divided into four chambers through which heat transfer oil (heating element) flows. The shell comprises inlets 9, 11 and outlets 10, 12 for heat transfer oil. The bars comprise straight channels 5, 6, 15, 16 through which the heat transfer oil passes from one chamber to an opposing chamber, thus the opposing chambers are in liquid communication via the channels and heating oil flows in uniform manner throughout the complete body of the apparatus. The bars contact the viscous fluid not in contact with the walls and inherently result in a uniform transference of heat from the heating oil to the totality of the raw materials in the apparatus or, at least uniform transference of heat would have been obvious to one of ordinary skill in the art. The flow of viscous material is from top to bottom and is divided at each of the edges 19 and directed to troughs 20. Lower layers of bars have troughs 20' that direct the viscous fluid laterally, thus the viscous fluid is mixed and follows various trajectories through the apparatus or, at least, various trajectories would have

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been obvious to one of ordinary skill in the art. The arrangement of alternating layers forms a labyrinth through which the viscous liquid passes.

The art of Scheeres, Schuchardt and the instant invention is analogous as pertaining to heating of viscous materials. Scheeres teaches a machine comprising a chamber for heating waste plastic to provide molten mouldable product. Scheeres also teaches the necessity for and a method of providing heat to the interior of the molten product to prevent partial solidification at the outlet. Since various plastic materials are processed, mixing of the material would also have been obvious to obtain a uniform mouldable product. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the mixer/heat exchanger apparatus of Schuchardt for the chamber and spider in the waste plastic treating machine of Scheeres as an efficient way to provide even heating of the plastic to prevent solidification of a portion of the material prior to exiting the chamber and to provide a uniform mouldable product. The apparatus of Schuchardt comprises hollow walls that form four chambers in the embodiment disclosed. However, it would have been obvious to form the apparatus with two chambers to minimize the amount of piping and connections required for the heating oil. Such an embodiment would have been readily envisioned by one of ordinary skill in the art.

Regarding Claim 11, the apparatus of Scheeres comprises a chassis or supporting structure (col 25, lines 31-33), a control panel (col 25, lines 43-44), a hydraulic piston (col 34, lines 40-46), a pushing plate (col 35, lines 3-6, paddle), a feeding screw conveyor (col 35, lines 3-6), a receiving chamber (items 30, 31 and 32,



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Fig. 4, col 26, lines 24-28), a flanged union (items 42 and 43, Fig. 4, col 26, lines 47-49), a pump (col 25, lines 67-68), a discharge opening (item 47, Fig. 4, col 26, lines 59-60), connecting pipes such as the post densification chamber, ducts providing liquid coolant and lines connecting to the pumps and heat exchangers, etc (item 29, Fig. 4, col 26, lines 42-45; col 25, line 67 to col 26, line 2; col 29, lines 8-10), a sensor with a thermometer (col 27, lines 58-63), heating equipment (items 50, 51 and 56, Fig. 4, col 27, lines 20-49), a compensation tank to maintain the system at atmospheric pressure (the system is not pressurized, thus the cabinet in which it is enclosed or the room in which the apparatus is housed provides the means to maintain atmospheric pressure), a venting orifice with cap (item 24, Fig. 1, col 25, lines 61-65, cap is not disclosed, but would have been obvious as the purpose is to vent odors or fumes and not to let air in), other sensors such as a noxious gas sensor (col 13, lines 10-13), and a reactor or furnace (items 33, 37 and 38, Fig. 4, col 26, lines 36-40). The reactor or furnace is obviously characterized by advanced and novel disposition of its parts in order to have been patentable. A sensor with a purge is not disclosed, but it would have been obvious to one of ordinary skill in the art to locate the disclosed noxious gas sensor in the venting orifice for removing odors or fumes discussed above (construed by the Examiner to be a purge).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS CORDRAY whose telephone number is (571)272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/  
Supervisory Patent Examiner, Art  
Unit 1791

/Dennis Cordray/  
Examiner, Art Unit 1791